

REMARKS/ARGUMENTS

1. In the above referenced Office Action, the Examiner rejected claim 1 under 35 USC § 102 (b) as being anticipated by Tomono et al (U.S. Patent No. 4,803,453); claims 1 under 35 USC § 102 (b) as being anticipated by Frye et al (U.S. Patent No. 6,097,273); claims 2-5 under 35 USC § 103 (a) as being unpatentable over Tomono et al (U.S. Patent No. 4,803,453) in view of Christensen (U.S. Patent No. 6,794,977); claim 6 under 35 USC § 103 (a) as being unpatentable over Tomono et al (U.S. Patent No. 4,803,453) in view of Li (U.S. Patent No. 5,477,204); and claims 7-8 under 35 USC § 103 (a) as being unpatentable over Tomono et al (U.S. Patent No. 4,803,453) in view of Christensen (U.S. Patent No. 6,794,977) and further in view of Frye et al (U.S. Patent No. 6,097,273). In addition, the Examiner objected to claims 1-8 based on an informality in claim 1, line 11 and requested that the Abstract be rewritten.

Claims 1-6 and 9 are currently pending in this application. Claims 1-3 and 5 have been amended. Claims 7-8 have been cancelled. New claim 9 has been added. No new matter has been added. The rejections above have been traversed and, as such, the applicant respectfully requests reconsideration of the allowability of claims 1-6 and 9.

2. The Examiner suggested that the Abstract be rewritten to correspond with the method claims of the present application. Applicant thanks the Examiner for this suggestion and has complied by amending the specification to include a new abstract.

3. The Examiner objected to claims 1-6 based on an informality in claim 1, on line 11. this informality has been addressed by making an express reference to the secondary winding. Applicant respectfully requests that this objection be withdrawn.

4. Claim 1 was rejected based on Tomono. Claim 1 has been amended such that the steps of creating the primary winding and secondary winding are performed on a semiconductor substrate. In contrast, Tomono discloses a multiple layer laminated transformer and not the method of manufacturing an on-chip transformer balun of claim 1. For this reason, Applicant respectfully request that the rejection based on Tomono be withdrawn.

In addition, claim 1 was rejected based on Frye. Claim 1 as amended to recite:

creating, on a semiconductor substrate, a primary winding having at least one primary turn on a first dielectric layer and at least one metal bridge on a second dielectric layer, wherein the at least one primary turn is substantially symmetrical; and

creating, on the semiconductor substrate, a secondary winding having at least one secondary turn on a third dielectric layer and at least one metal bridge on a fourth dielectric layer, wherein the at least one secondary turn is substantially symmetrical, and wherein the

secondary winding is magnetically coupled to the primary winding.

Frye does not disclose suggest or teach the particular four layer structure recited above. Claims 2-5 were rejected based on the combination of Tomono and Christensen. In addition claim 6 was rejected based on the combination of Tomono and Li. These combinations further lack the four layer structure recited above.

For these reasons, claim 1, and claims 2-6 that depend therefrom are believed to be patentably distinct from the prior art.

5. New claim 9 has been added that recites in part:
creating, on a semiconductor substrate, a primary winding having at least one first primary turn on a first dielectric layer and at least one second primary turn on a second dielectric layer and at least one via that operably connects the first primary turn to the second primary turn, wherein the at least one primary turn is substantially symmetrical; and

creating, on the semiconductor substrate, a secondary winding having at least one first secondary turn on a third dielectric layer and at least one second secondary turn on a fourth dielectric layer, wherein the at least one secondary turn is substantially symmetrical, and wherein the secondary winding is magnetically coupled to the primary winding.

Neither Tomono, Frye, Christiansen nor Li present this alternative four-layer structure. For these reasons, claim 9 is believed to be patentably distinct from the prior art.

For the foregoing reasons, the applicant believes that claims 1-6 and 9 are in condition for allowance and respectfully request that they be passed to allowance.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present invention.

A one month extension of time, having fees paid by credit card, is filed concurrently herewith that extends the period of response to July 17, 2006. No additional fees are due. The Commissioner is authorized to charge any fees that are required or credit any overpayment to Deposit Account No. 50-2126.

RESPECTFULLY SUBMITTED,

By: /Bruce E. Stuckman reg. 36,693/
Bruce E. Stuckman
Phone: (512) 241-8444
Fax No. (512) 241-8445

CERTIFICATE OF MAILING

37 C.F.R 1.8

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